

Serial No.: 10/537,954
Amdt. dated 02/16/2007
Reply to Office Action of 01/19/2007

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REMARKS

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According to the Examiner, the application contains claims directed to two distinct inventions, viz., Invention I and Invention II. The subject matter of Invention I is embodied in claims 15-25, which are drawn to a nuclear fuel assembly/rod, and the subject matter of Invention II is embodied in claims 26-29, which are drawn to the manufacturing of nuclear fuel rods. The Examiner alleges that the subject matter of Inventions I and II are related as a process of making and product made.

Furthermore, the Examiner indicates that two distinct species are also present, viz., the species of Group A in which a cladding tube is made of zirconium and the species of Group B in which a cladding tube is made of a zirconium-based alloy, and that upon the election of either Invention I or II, one of the disclosed species must be elected.

Moreover, the Examiner indicates that two distinct sub-species are also present, viz., the sub-species of Group C in which the internal pressure of the fill gas is at least about 2 bars and the proportion of carbon monoxide is at least about 3% by volume of the fill gas and the sub-species of Group D in which the internal pressure of the fill gas is at least about 10 bars and the proportion of carbon monoxide is at least about 2% by volume of the fill gas, and that if Invention I is elected, one of the disclosed sub-species must be elected.

The Examiner indicates that no claim appears to be generic to Invention I and that no claim appears to be generic to Invention II.

The Examiner has required the election of a single Invention as well as a single disclosed Species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

As stated above, Applicants hereby elect with traverse Invention I, species B, and sub-species C for further prosecution. Claims 15-18 and 23-25 are the claims encompassing the elected invention.

Applicants respectfully disagree with the Examiner's reasons for the restriction requirement and, as stated above, traverse the requirement. One reason for the traversal of this restriction is that common inventive features are contained both in the product claims and in the method claims. Applicants submit that the method defined in the method claims would not result in any other products than those defined in the product claims. Furthermore, Applicants submit that the products defined in the product claims can not be made by a process that is materially different from that defined by the method claims. For at least this

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reason, Applicants respectfully request that the Examiner withdraw the restriction requirement.

Another reason for the traversal is that one of the problems the present invention addresses is the prevention of secondary hydrogenation and the prevention of a secondary defect after a primary defect by controlling the carbon monoxide concentration in the fill gas in the fuel rod. Due to different system pressures in a boiling water reactor and a pressurized water reactor, the internal pressure of the fill gas in the fuel rods will vary. As a consequence thereof, the proportion of carbon dioxide in the fill gas will also vary. The varying pressures and temperatures defined in independent claims 15 and 19 thus reflect the fact that the fuel rods are to be introduced into a boiling water reactor and a pressurized water reactor respectively. The problem of the invention remains the same in the two independent claims 15 and 19. For at least this reason, Applicants respectfully request that the Examiner withdraw the restriction requirement.

Applicants believe that the foregoing election fully complies with the Office Action and that all claims of the application are allowable. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is invited to telephone the undersigned.

Applicants believe that no fees are due with the submission of this Response. If, however, it is deemed that any fees are in fact due, they may be charged to Deposit Account No. 503342 maintained by Applicants' attorneys.

Respectfully submitted,

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